Detecting Users' Psychological States through Mouse Cursor Movements

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ABSTRACT

Behavioral research in information systems is testing increasingly complex models using sophisticated statistical methodologies. As the inputs into these models are often unobservable constructs, they are subject to various biases such as social desirability or demand effects. Responding to such problems, IS researchers have recently turned to the use of psychophysiological tools to get a deeper understanding of the constructs of interest. However, such tools also have a number of drawbacks, such as high costs or increased artificiality of the setting, potentially limiting external validity. To this end, we propose augmenting the use of traditional measurement scales and psychophysiological tools with other, readily observable phenomena. As a case in point, we propose mouse cursor movements as having the potential to provide online retailers with possibilities to infer users' state of flow, and discuss the potential of using mouse cursor movements for inferring users' psychological states in other settings and contexts.

Keywords

Human-computer interaction, psychophysiology, mouse cursor movements.